CAPITAL Improvement Plan

2023

Three Valleys
Municipal Water District

THREE VALLEYS MWD

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Introduction

The **Capital Improvement Plan** (**CIP**) is a working blueprint for building and sustaining Three Valleys Municipal Water District's physical infrastructure. The purpose of a CIP is to identify capital improvement projects, identify and forecast funding sources, prioritize improvements based on funding available, and estimate a timeline for completion of individual improvements. **Capital Improvement Projects** are projects which involve the purchase, improvement or construction of major fixed assets and equipment, which are typically large in size, expensive, and permanent. Examples of capital projects include the expansion of treatment plants and the construction/rehabilitation of pipeline and pump stations.

This CIP identifies projects for the Fiscal Year 2023/24 through FY 2027/28 that are needed for the rehabilitation, replacement, or expansion of the facilities owned or operated by TVMWD. Projects were identified based on physical conditions of assets, forecasted regional projections of water demands and outlook of water resource availability. The timing of the projects identified in the CIP are further refined during the fiscal year based on the availability of financial resources.

This CIP provides a holistic picture including recently completed projects, projects in the planning phase, the five year plan, as well as projects that are envisioned to occur beyond the five year planning horizon.

The CIP is consistent with and is instrumental in achieving Three Valleys' Strategic Plan objectives.

Year In Review

Three Valleys was successful in its ***CIP implementation rate at 80%*** or $2.8 million of the Fiscal Year 2022-23 budget of $3.6 million. Highlights of projects that were completed in last FY are provided below.

The construction and startup of ***MiraGrand Well*** in the Six Basins Groundwater Basin was completed in February 2023. The total project cost is $6 million.

Three Valleys received **$200,000 of grant funding** from the United Stated Bureau of Reclamation's WaterSMART program to develop a **Regional Drought Contingency Plan.**

Several Miramar Treatment Plant upgrades such as the ammonia and chlorine storage tanks upgrades and turbidity meter relocation projects were completed **on schedule and within budget.**

Three Valleys' fourth well, ***MiraGrand****, was placed in operation with a local supply augmentation capacity of* ***800 acre-feet per year***

Projects in Planning

Support Three Valleys mission to supplement and enhance local water supplies

The Projects that are in the planning phase provides the context to develop an implementation working collaboratively with Three Valleys' member agencies to meet short and long term needs cost effectively. Summary of the planning efforts in progress and that will continue into the future years are provided below. The project costs are summarized in the Planning & Resources category in the Five Year Plan.

01. Water Resources Master Plan

Holistic plan that creates a road map of strategies, projects and schedule to develop local sustainable supplies that is resilient to unforeseen change in conditions. This plan will be developed along with the Drought Contingency Plan, which received $200,000 in grant funding.

02. Funding Opportunities

Critical component of long term strategy to resilient reliable water supplies is to seek opportunities for funding partners and grant opportunities to creative a cost effective portfolio. Three Valleys has set up a protocol in place to seek for funding opportunities for itself and its member agencies.

03. Groundwater Reliability Partnership

Partnership with City of Glendora and Puente Basin Water Agency [PBWA] to develop feasibility study to implement a regional distribution network and local supplies by utilizing **6,000 acre-feet per year** of stranded City assets. Three Valleys has a preliminary award of $300,000 funding from Main San Gabriel Basin Water Quality Authority for the project.

04. Storage & Recovery Programs

As a region which relies 50 - 60% on imported water supplies, it is imperative to invest in local supplies and supply diversification. Three Valleys has been advocating amongst regional partnering agencies to increase investments in the three groundwater basins that Three Valleys overlies on, the Chino, Main San Gabriel and Six Basins groundwater basins.

Planning and Resources

Planning & Resources	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Water Resources Master Plan + Drought Contingency Plan	$350,000	$0	$0	$0	$0
Grants Assistance	$150,000	$150,000	$150,000	$150,000	$150,000
EIR Review + Partnerships	$50,000	$50,000	$50,000	$50,000	$50,000
Misc. Studies	$100,000	$100,000	$100,000	$100,000	$100,000
Total	$650,000	$300,000	$300,000	$300,000	$300,000
Grants	$200,000	$0	$0	$0	$0
Net Three Valleys Project Cost	$450,000	$300,000	$300,000	$300,000	$300,000

The Planning Studies for the fiscal years 2023-2028 is ***$1.65 million***

Five Year CIP

The capital projects are categorized into three categories: ***Miramar Treatment Plant and Distribution System Improvements, Miramar Facility Improvements, and Water Supply & Reliability Projects.*** The projects include a combination of capital improvement projects and repair and rehabilitation projects. Description of major projects included in the various categories are also provided. The total project costs for the next five years is $13 million. As described in further detail in subsequent sections, certain projects will not move forward until funding sources are secured and project specific approvals are obtained; if those are secured, the five year CIP is estimated at $87 million.

Project Type	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Miramar System Improvements	$1,997,216	$800,000	$100,000	$300,000	$100,000
Miramar Facility Improvements	$625,000	$2,120,000	$900,000	$120,000	$120,000
Water Supply & Reliability	$5,150,000	$3,450,000	$21,450,000	$32,500,000	$17,750,000
Subtotal	$7,772,216	$6,370,000	$22,450,000	$32,920,000	$17,970,000
Other Funding*	$4,650,000	$3,450,000	$21,200,000	$30,000,000	$15,000,000
Net Project Cost	**$3,122,216**	**$2,920,000**	**$1,950,000**	**$2,220,000**	**$2,970,000**
FIVE YEAR 2023-2028 CIP $13 MILLION					

*External funding from Project Partners and grants as identified later in the detail sections

Miramar Treatment Plant & System Improvements

This category includes capital improvement projects, with the majority of the projects needed for routine replacement and rehabilitation of systems as needed to address end of life equipment needs and system modification. Highlights of major projects are provided below.

Miramar System Leak Detection

This project was initiated to identify system water losses, the trend increasing to 10%, potentially resulting in revenue loss of $2 million per year. The project includes main distribution line inspection that will provide structural integrity analysis and also the remaining life span of the system.

Total Project Cost: $380,000

Metropolitan Water District Funding: $20,000

PM-21 [Miramar] Bypass Magmeter

Miramar Treatment Plant's design capacity is 40 cubic feet per second [cfs]. Lower demands due to factors of water use efficiency and water shortage conditions requires the plant to operate at minimal flows of 8 cfs. This effort initiates a project with Metropolitan Water District to install a meter suitable for lower flow conditions, increasing meter accuracy and reduce potential for apparent water losses.

Total Project Cost: $2,000,000

Miramar Treatment Plant Unplanned Repairs & Rehabilitation

This category of projects is set aside as an annual budget from which unplanned repairs and rehabilitation projects are funded from that were not foreseen as a need.

Total Project Cost: $100,000 per year

Miramar Treatment Plant & System Improvements

Miramar Treatment Plant & System Improvements	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Ammonia System Upgrade	$0	$0	$200,000	$0	
Miramar System Leak Detection	$160,000		$0	$0	
Wheeler Cabinet Upgrade	$0	$200,000	$0	$0	
TTHM Fan	$80,000	$0	$0	$0	
PM-21 Bypass Meter	$1,500,000	$500,000	$0	$0	
Electrical Switchgear Upgrade	$157,216				
Miramar Treatment Plant Unplanned R&R	$100,000	$100,000	$100,000	$100,000	$100,000
TOTAL	**$1,997,216**	**$800,000**	**$300,000**	**$100,000**	**$100,000**

Miramar Treatment Plant and System Improvements is **$3.3 million** or 25% of the overall five year CIP

Miramar Facility Improvements

This category of projects include combination of capital improvement projects and routine replacement and rehabilitation of systems as needed to address end of life of equipment, security and operating systems. Highlights of major projects are provided below.

Miramar Efficiency Upgrades

The Miramar administration building was constructed nearly 40 years ago and requires updates to replace the roofing, improve the Heating, Ventilation and Air Conditioning [HVAC] system, and lighting upgrades to improve habitability and increase energy efficiency. The project also includes office space efficiency improvements as well as treatment plant roofing and shading upgrades.

T**otal Project Cost: $2,450,000**

SCADA & Communication Systems

This category of projects include site to site communication, business network communication, Programmable Logic Controllers [PLC], software and programming to maintain to industry standards and best practice.

Total Project Cost: $230,000 over the five year period

Security Systems

This category of projects include onsite and offsite security enhancements with improved surveillance and communication that are needed on a routine basis.

Total Project Cost:

FYE 2024 $300,000 and thereafter $100,000 per year

Miramar Facility Improvements

Miramar Facility Improvements	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Miramar Efficiency Upgrades	$100,000	$1,950,000	$700,000	$0	
Vehicle	$50,000	$0	$80,000	$0	
Security System	$300,000	$100,000	$100,000	$100,000	$100,000
IT AV Project	$75,000				
SCADA & Communication Systems	$100,000	$70,000	$20,000	$20,000	$20,000
TOTAL	**$625,000**	**$2,120,000**	**$900,000**	**$120,000**	**$120,000**

Miramar Treatment Plant and System Improvements is **$3.9 million** or 29% of the overall five year CIP

Water Supply & Reliability

This category includes primarily capital improvement projects addressing water supply, diversification of supplies, operational flexibility and overall improve reliability and resilience to climate change. Highlights of major projects are provided below.

Miramar Pumpback Upgrades

This project was initiated to increase system flexibility by moving water from Colorado River [MWD's Weymouth Treatment Plant] into the Miramar Distribution normally served by the State Water Project from Three Valleys' Miramar Treatment Plant. The project addresses Metropolitan's supply constraints with the State Water Project while also providing benefit to SWP dependent agencies. The project is envisioned to be fully funded by Metropolitan.

Total Project Cost: $7,400,000

Metropolitan Water District Funding/Grants: $7,400,000

Padua Pump Station

Three Valleys is in the process of acquiring the property from California Department of Transportation. The property will be used as a future pump station location to incorporate the Pure Water into Miramar system.

Total Project Cost: $5,000,000

Groundwater Reliability Project

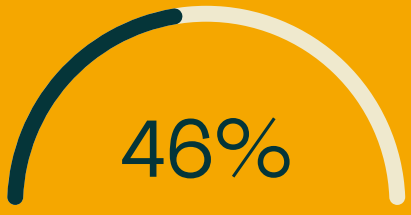
The Project will rehabilitate City of Glendora's existing stranded wells, provide well head treatment and develop a regional distribution system to create water supply and system flexibility within the Three Valleys service area. The Project is in the feasibility stage and will only proceed if funding agreements are developed with either the GW Reliability Partnership or rates to support the construction and operation of the facilities. Assumption for the funding in the CIP includes 100% funding from grants and/or the Partnership [City of Glendora and PBWA] without any current rate impact for Three Valleys customers.

Total Project Cost: $66,900,000

Water Supply & Reliability

Water Supply & Reliability	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028
Padua Pump Station	$500,000		$250,000	$2,000,000	$2,750,000
Grand Avenue Well Improvement			$500,000		
Miramar Pumpback*	$4,200,000	$2,000,000	$1,200,000		
GW Reliability Project*	$300,000	$1,450,000	$20,000,000	$30,000,000	$15,000,000
Six Basins GW Project*	$150,000				
Total	$5,150,000	$3,450,000	$21,450,000	$32,500,000	$17,750,000
Other Funding	$4,650,000	$3,450,000	$21,200,000	$30,000,000	$15,000,000
Net Project Cost	**$500,000**	**$0**	**$750,000**	**$2,000,000**	**$2,750,000**

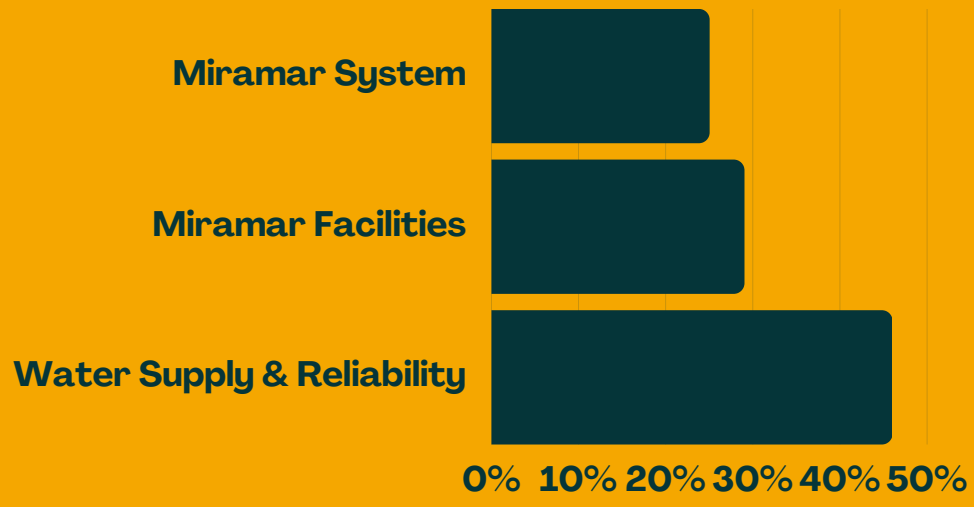
*Miramar Pumpback Project is assumed to move forward only with 100% funding from Metropolitan Water District | GW Reliability Project is assumed to proceed at this stage only with 100% external funding from grants or project partners | Six Basins GW Project is 100% reimbursed by the Puente Basin Water Agency



Miramar Treatment Plant and System Improvements is **$6 million** or 46% of the overall five year CIP

FY 2023-28 CIP

The proposed five year CIP for FY 2023-28 is the same as the previous five year CIP at $13 million.



$13M

Net Three Valley expenses for the 2023-28 CIP

23

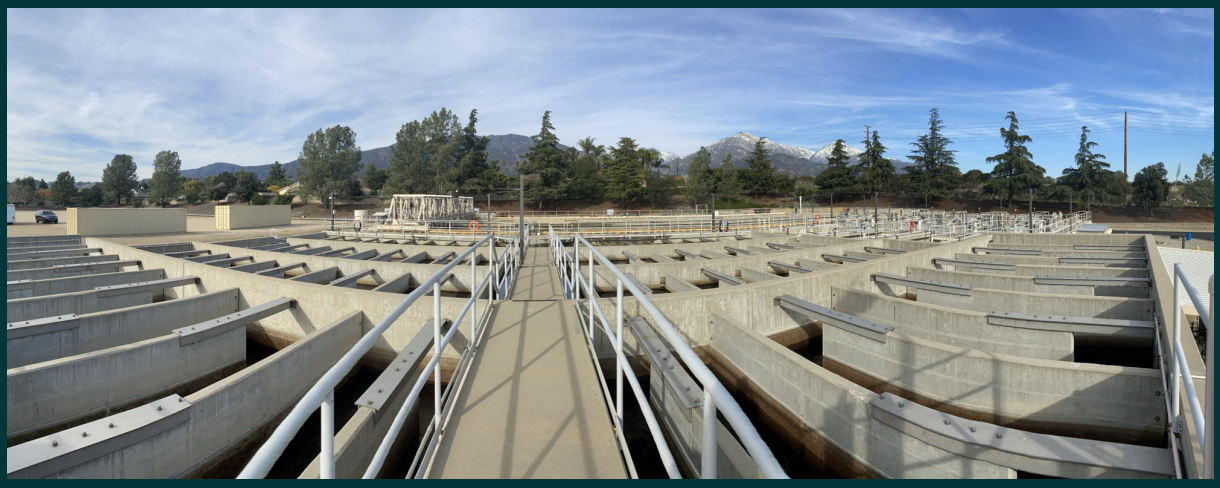
rmajor projects in the five year 2023-28 CIP

Three Valleys is in the process of developing several studies which will provide a holistic approach and a roadmap for water resource initiatives ***in collaboration with its member agencies***. Based on the results and recommendations of the studies, additional projects may be added in the future CIPs to ***continue providing cost effective local supplemental supplies.***

Long Term CIP

The table is in the process of being developed and will be published in the final CIP

Capital Improvement Plan 2023-28



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